



MARKED-UP VERSION OF

SUBSTITUTE SPECIFICATION UNDER 37 C.F.R. 1.125

A METHOD AND APPARATUS FOR CONTROLLING ~~THE~~ HEAD VELOCITY IN OF A DISK HARD DRIVE DURING RAMP LOAD/UNLOAD

FIELD OF THE INVENTION

The present invention relates to ~~a method and apparatus for controlling the transducer head velocity inef a disk drive during a ramp load or unload procedure.~~

- 10 ~~More particularly, the present invention provides for the control of the transducer heads using a microprocessor to determine the speed of the heads and, accordingly, to make velocity adjustments.~~

BACKGROUND OF THE INVENTION

- 15 ~~DA hard disk drives include is a device with one or more disks, or platters,~~
on which digital information is stored asin the form of magnetic charges. The
disk (or disks) is are mounted on and rotated by a cylindrical spindle rotated by a
spindle motor assembly. An actuator assembly includes an actuator arm and
Contemporary hard disk drives typically include an actuator, a rotary actuator
structure that is powered by a voice coil motor ("VCM"). The, an actuator arm
20 extendsing from the VCM and supports a slider that includes a read/write head.
The head reads from and writes to the disk as the slider flies over the disk on an
air cushion. T, he VCM positions the head and a transducer head disposed at the
end of the actuator arm. The rotary actuator structure positions one or more
slider head assemblies at desired locations relative to the surfaces of the
25 magnetic disk or disks. A hard disk read/write head, which is used to read and